Project Design Phase-I – Problem-Solution Fit

Project Title: Virtual Eye -Life Guard for Swimming Pools to Detect Active Drowning **Team ID: PNT2022TMID30150**

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Swimmers and Ordinary people, Organization and Trainers

6. CUSTOMER CONSTRAINTS CC

It will be Affordable and Device compatibility and User-friendly device

5. AVAILABLE SOLUTIONS AS

The existing solution which gets the data and after training the model, predicts the results. Various software and device have been developed but not gives high accuracy rate

Explore AS, differentiate

Focus on J&P, tap into BE, understand RC

2. JOBS-TO-BE-DONE / PROBLEMS J&P

Lifeguards and trainers can't monitor all the swimmers /persons at a same time
Detection system to detect drowning persons was not fast and accurate

9. PROBLEM ROOT CAUSE RC

The possibilities of detection of drowning were not up to the expected level and accuracy rate of the detection of existing system was low so there is a need for developing a system with high accuracy rate in detection

7. BEHAVIOUR BE

Get information from others
Search and learn about drowning detection system
Search for solution in online

Focus on J&P, tap into BE, understand RC

Identify strong TR & EM

3. TRIGGERS TR

Death rate of drowning was become high nowadays. System to detect drowning was not give high accuracy rate

4. EMOTIONS: BEFORE / AFTER EM

Before:
Insecure and stressful
After:
Relaxed, Comfortable, feel secure

10. YOUR SOLUTION SL

Using CNN -YOLOv7 algorithm to detects the drowning people to get high and fast accuracy rate. It detects the drowning person and alerting by beep alarm and shows the exact position of a drowning person.

8.CHANNELS of BEHAVIOUR CH

8.1 ONLINE

Share information, social media, Blogs

8.2 OFFLINE

Monitor persons, Friends and Colleague, get help from lifeguards or trainers

Extract online & offline CH of BE